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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,016	08/21/2001	John C. Ruttenberg	PA1686US	9088
22830	7590	08/10/2005	EXAMINER	
CARR & FERRELL LLP 2200 GENG ROAD PALO ALTO, CA 94303			HU, JINSONG	
		ART UNIT		PAPER NUMBER
				2154

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/935,016	RUTTENBERG ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Jinsong Hu	2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 23 June 2005.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-14, 16-18, 20-32, 37-52, 55-62 and 64-66 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 64-66 is/are allowed.

6)  Claim(s) 1-14, 16-18, 20-32, 37-52 and 55-62 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/18/05.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_.

**DETAILED ACTION**

1. Claims 1-14, 16-18, 20-32, 37-52, 55-62 and 64-66 are presented for examination. Claims 1-4, 6-7, 11-12, 16-18, 20-21, 23, 27-32, 37-45, 47-52, 55-56, 58, 62 have been amended; claims 15, 19, 33-36, 53-54, 63 and 67-76 have been canceled.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 6, 10-12, 21-22 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter et al. (US 6,332,023) in view of Mitsutake et al. (US 6,240,460).

4. Porter is a prior art reference cited by Examiner on previous Office Action; Mitsutake is a prior art reference cited by applicant on 1449 form, filed on 5/18/05.

5. As per claims 1, 4, 10 and 21-22, Porter teaches the invention as claimed including a system for scheduling a data transfer over a communication network,

comprising of a node configured to send data [13a-e, Fig. 1; col. 4, lines 15-31]; a node configured to receive data [col. 4, lines 17-25]; and a transfer module at each node configured to evaluate a data transfer request in view of satisfying objectives in accordance with resources at each node [16, Fig. 1; col. 4, lines 46-56; col. 5, lines 56-65; col. 7, lines 37-44].

Porter does not specifically teach the transfer module comprising a scheduling module, the scheduling module comprising a feasibility test configured to determine whether a single hop request is feasible. However, bbb on the other hand teaches the transfer module comprising a scheduling module, the scheduling module comprising a feasibility test configured to determine whether a single hop request is feasible [col. 18, lines 4-13]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Porter and bbb because doing so would avoid data transmission congestion by rejecting unqualified request. One of ordinary skill in the art would have been motivated to modify Porter's system to increase the throughput of the system.

6. As per claim 6, Porter teaches the objectives include a deadline for the delivery of the requested data to the node configured to receive data [col. 7, lines 20-28].

7. As per claims 11-12, Porter teaches the transfer module includes an admission control module configured to accept or deny a data transfer request from a user [col. 7, lines 51-65].

8. As per claim 29, Porter teaches the transfer module includes a priority module configured to assign a priority to the data transfer request [col. 8, lines 8-11].

9. Claims 2-3, 8-9, 27 and 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter et al. (US 6,332,023) in view of Mitsutake et al. (US 6,240,460) as applied to claims 1, 4, 6, 10-12, 21-22 and 29 above, further in view of Nakano et al. (US 6,337,850).

10. As per claims 2-3 and 8-9, Porter and bbb teach the invention substantially as claimed in claim 1. Both references do not specifically mention a transmitting bandwidth and an available receive bandwidth. However, Nakano on the other hand teaches an transmitting bandwidth and an available receive bandwidth [col. 9, lines 23-27 and 40-41; col. 10, lines 1-14]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Porter/bbb and Nakano because doing so would increase the throughput of the system by avoiding delivering inappropriate size data packet to a requester whose bandwidth is insufficient. One of ordinary skill in the art would have been motivated to modify the combination system of Porter/bbb with Nakano's transmitting and available receive bandwidth to improve the performance of the system.

11. As per claims 27 and 41-44, Porter teaches the invention substantially as claimed in claim 1. Porter does not specifically disclose the steps of allocating and

reserving bandwidth in both transmitting and receiving node. However, Nakano on the other hand teaches the steps of allocating and reserving bandwidth in both transmitting and receiving nodes [col. 9, lines 23-27 and 40-41; col. 10, lines 1-11]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Porter and Nakano because doing so would reduce packet collision during the data transfer [Nakano, col. 2, lines 64-67]. One of ordinary skill in the art would have been motivated to modify Porter's system with Nakano's allocating and reserving bandwidth in both transmitting and receiving nodes to control transfer bandwidth.

12. Claims 5, 16-18, 20, 23-26, 28, 32, 37-40, 45-52 and 55-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter et al. (US 6,332,023) and Mitsutake et al. (US 6,240,460) as applied to claims 1, 4, 6, 10-12, 21-22 and 29 above, in view of Marshall (US 6,208,661).

13. As per claims 5, 16-18, 20, 23-26, 32 and 37-40, Porter and bbb teach the invention substantially as claimed in claim 1. Both references do not specifically teach a scheduling module is configured for identifying the data, available resources at that node, and a deadline for delivery. However, Marshall on the other hand teaches a scheduling module for identifying the data, available resources at that node, and a deadline for delivery [col. 7, line 24 – col. 8, line 6]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the

teaching of Porter/bbb and Marshall because utilizing Marshall's schedule module in the combination system of Porter/bbb would improve the integrity of the system by delivering the data packet based on a predetermined time slot. One of ordinary skill in the art would have been motivated to modify the combination system of Porter/bbb with Marshall's schedule module to avoid the network transmitting congestion.

14. As per claims 28 and 45-46, Marshall teaches the transfer module includes an execution module configured to execute accepted data transfers under guidance of execution instructions from the scheduling module [col. 8, line 62 – col. 9, line 9; col. 14, lines 21-25].

15. As per claims 47 and 50-51, Porter and bbb teach the invention substantially as claim 1. Both references do not specifically teach a scheduling module for schedule delivering. However, Marshall on the other hand teaches a scheduling module for schedule delivering [col. 7, line 24 – col. 8, line 6]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Porter/bbb and Marshall because utilizing Marshall's schedule module in the combination system of Porter/bbb would make the system more user friendly by allowing user has a chance to receive the required information in a later time instead of being simply rejected. One of ordinary skill in the art would have been motivated to modify the combination system of Porter/bbb with Marshall's schedule module to attract more potential customers.

16. As per claims 48-49, 52, 56 and 58, Porter, bbb and Marshall teach the invention substantially as claimed in claim 1. The references do not specifically mention a transmitting bandwidth and an available receive bandwidth. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a transmitting bandwidth and an available receive bandwidth in the combination system of Porter/bbb because doing so would increase the throughput of the system by avoiding delivering inappropriate size data packet to a requester whose bandwidth is insufficient. One of ordinary skill in the art would have been motivated to modify the combination system of Porter/bbb with transmitting and available receive bandwidth to improve the performance of the system.

17. As per claims 55, 57 and 59, since they are method claims of claims 5, 17 and 25, they are rejected for the same basis as claims 5, 17 and 25 above.

18. Claims 7, 13-14 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter et al. (US 6,332,023) and Mitsutake et al. (US 6,240,460) as applied to claims 1, 4, 6, 10-12, 21-22 and 29 above, in view of "Official Notice".

19. As per claim 7, Porter and bbb teach the invention substantially as claimed in claim 1. Both references do not specifically disclose the objectives include minimizing the cost of delivery. "Official Notice" is taken that both the concept and advantages of selecting a resource based on the delivery cost is well known and expected in the art. It

would have been obvious to a person of ordinary skill in the art to consider minimizing the delivery cost to enable the user has a chance to receive the required service in acceptable cost.

20. As per claims 13-14, Porter and bbb teach the invention substantially as claimed in claim 1. Both references do not specifically teaches the step of suggesting a different deadline or offering to place a denied data transfer request on a waiting list. "Official Notice" is taken that both the concept and advantages of providing for new deadline suggestion and waiting list option are well known and expected in the art. It would have been obvious to a person of ordinary skill in the art to include new deadline suggestion and waiting list option with Porter because it would provide better service to users.

21. As per claim 30, Porter and bbb teach the invention substantially as claim ed in claim 1. Both references do not specifically teach the transfer module includes an error recovery module configured to maintain a current state of the transfer module to allow a node to be restarted. "Official Notice" is taken that both the concept and advantages of error recover function is well known and expected in the art. It would have been obvious to a person of ordinary skill in the art to include error recover function with Porter because it would make the system more reliable.

22. As per claim 31, Porter and bbb teach the invention substantially as claimed in claim 1. Both references do not specifically disclose the data transfer request includes

an earliest deadline and a latest deadline. "Official Notice" is taken that both the concept and advantages of either earliest or latest deadline is well known and expected in the art. It would have been obvious to a person of ordinary skill in the art to include those deadlines with Porter because it would enable the user received the information that he/she required in his/her expected time frame.

23. Claims 60-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porter et al. (US 6,332,023) and Mitsutake et al. (US 6,240,460) as applied to claims 1, 4, 6, 10-12, 21-22 and 29 above, in view of Marshall (US 6,208,661), further in view of "Official Notice".

24. As per claim 60, Porter, bbb and Marshall teach the invention substantially as claimed in claim 47. Three references do not specifically teach the step of suggesting a different deadline or offering to place a denied data transfer request on a waiting list. "Official Notice" is taken that both the concept and advantages of providing for new deadline suggestion and waiting list option are well known and expected in the art. It would have been obvious to a person of ordinary skill in the art to include new deadline suggestion and waiting list option with Porter/Marshall because it would provide better service to users.

25. As per claims 61-62, Porter, bbb and Marshall teach the invention substantially as claimed in claim 47. Three references do not specifically disclose the data transfer

request includes an earliest deadline and a latest deadline. "Official Notice" is taken that both the concept and advantages of either earliest or latest deadline is well known and expected in the art. It would have been obvious to a person of ordinary skill in the art to include those deadlines with Porter/Marshall because it would enable the user received the information that he/she required in his/her expected time frame.

***Allowable Subject Matter***

26. Claims 64-66 are allowed.

***Conclusion***

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jinsong Hu whose telephone number is (571) 272-3965. The examiner can normally be reached on 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A. Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jinsong Hu

August 8, 2005

JOHN FOLLANSBEE  
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